



LR-E13-0111

EPP 5.4.2 Appendix B

AUG 01 2013

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7011 1570 0001 8889 9171

SUBJECT: **REPORT OF IMPINGEMENT OF SHORTNOSE STURGEON
SALEM GENERATING STATION UNIT NO. 1
DOCKET NO. 50-272**

The Nuclear Environmental Event Report, "Report of Impingement of Shortnose Sturgeon" is being submitted pursuant to the requirements of Section 5.4.2 of Appendix B, Environmental Protection Plan, to the Operating License for the Salem Generating Station, PSEG Nuclear LLC (PSEG).

Please find enclosed a letter and two attachments with further information regarding this impingement event.

If you have any questions or require additional information, please do not hesitate to contact Kenneth Strait, Manager – Biological Programs at (856) 339-3929.

Sincerely,

A handwritten signature in black ink, appearing to read "LMW", written over a horizontal line.

Lawrence M. Wagner
Plant Manager - Salem
PSEG Nuclear LLC

Attachments (2)

Handwritten initials: IE23
NRR

REPORT OF IMPINGEMENT OF SHORTNOSE STURGEON

In accordance with Section 5.4.2 of Appendix B, Environmental Protection Plan, to the Operating License for the Salem Generating Station, PSEG Nuclear LLC (PSEG) hereby transmits notification of a nonroutine event, and documents the occurrence and removal of a shortnose sturgeon (*Acipenser brevirostrum*) from the Salem Generating Station circulating water intake structure trash bars.

Consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA) between NRC and the National Marine Fisheries Service (NMFS) on the effects of the operation of Salem Station on threatened and endangered species has been ongoing since 1979. The most recent revision to the Biological Opinion and Incidental Take Statement issued in January 1999 exempts the specified annual take of shortnose sturgeon and sea turtles. In advance of relicensing for Salem Station, consultation pursuant to Section 7 of the ESA between NRC and NMFS was reinitiated in 2009. On April 6, 2012, the NMFS listed five Distinct Population Segments of Atlantic sturgeon as threatened or endangered under the ESA. In May 2012, NRC requested consultation on the effects of the continued operation of Salem Station on Atlantic sturgeon. The NMFS issued a draft Biological Opinion and Incidental Take Statement (ITS) in July 2012 that, when finalized, will authorize a specified incidental take of both Atlantic sturgeon and shortnose sturgeon associated with operation of the Salem Station circulating water intake system.

Pursuant to Section 5.4.2 of the Environmental Protection Plan for Salem Station, nonroutine events which require reporting to other federal agencies shall be reported in accordance with the other agencies' reporting requirements. Accordingly, enclosed please find two (2) attachments. Attachment 1 provides the information requested by the NMFS in Appendix II to the current ITS and in Appendix B, Part 2, to the revised draft ITS. Attachment 2 is a copy of a Sturgeon Salvage Form verbally requested by the NMFS.

There are no commitments contained in this letter.

CC: Mr. William Dean, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. John Hughey, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 0-4D-3
Rockville, MD 20852

USNRC Senior Resident Inspector - Salem
Mail Code X24

Mr. P. Mulligan, Manager
Bureau of Nuclear Engineering
New Jersey Department of Environmental Protection
PO Box 420
Mail Code: 33-01
Trenton, NJ 08625-0420

Ms. Lynn Lankshear
National Marine Fisheries Service
Protected Resources Division
55 Great Republic Drive, Suite 04-400
Gloucester, MA 01930

Ms. Karen Greene
National Marine Fisheries Service
74 Magruder Road
Highland, NJ 07732-4054

Mr. Dave Jenkins
Endangered and Nongame Species Program
New Jersey Department of Environmental Protection
1 Van Syckels Road
Clinton, NJ 08809

Salem Commitment Coordinator
Mail Code X25

LR-E13-0111
Document Control Desk

bc: Salem Site Vice President
Salem Plant Manager
Director – Regulatory Affairs
Manager – Nuclear Environmental Affairs
Manager – Biological Programs
Regulatory Assurance Manager – Salem
Records Management

STURGEON SALVAGE FORM

For use in documenting dead sturgeon in the wild under ESA permit no. 1614 (version 05-16-2012)

INVESTIGATORS'S CONTACT INFORMATION

Name: First Douglas Last Potts
 Agency Affiliation PSEG subcontractor Email dpotts@ecsi-del.com
 Address 100 South Cass Street, Middletown, DE 19709
 Area code/Phone number (302) 378-9881

UNIQUE IDENTIFIER (Assigned by NMFS)

DATE REPORTED:

Month 07 Day 28 Year 2013

DATE EXAMINED:

Month 07 Day 28 Year 2013

SPECIES: (check one)

- ☒ shortnose sturgeon
☐ Atlantic sturgeon
☐ Unidentified *Acipenser* species

Check "Unidentified" if uncertain.

See reverse side of this form for aid in identification.

LOCATION FOUND: ☐ Offshore (Atlantic or Gulf beach) ☒ Inshore (bay, river, sound, inlet, etc)

River/Body of Water Delaware River City Hancocks Bridge State NJ

Descriptive location (be specific) Removed from Circulating Water Intake Structure (CWIS) intake trash racks during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.

Latitude 39° 27'38.17 N (Dec. Degrees) Longitude 75° 32'10.08 W (Dec. Degrees)

CARCASS CONDITION at time examined: (check one)

- ☒ 1 = Fresh dead
☐ 2 = Moderately decomposed
☐ 3 = Severely decomposed
☐ 4 = Dried carcass
☐ 5 = Skeletal, scutes & cartilage

SEX:

- ☒ Undetermined
☐ Female ☐ Male
 How was sex determined?
☐ Necropsy
☐ Eggs/milt present when pressed
☐ Borescope

MEASUREMENTS:

Circle unit

Fork length 75.8 cm
 Total length 83.5 cm
 Length ☒ actual ☐ estimate
 Mouth width (inside lips, see reverse side) 4.0cm
 Interorbital width (see reverse side) 5.5cm
 Weight ☐ actual ☐ estimate 2.2kg

TAGS PRESENT? Examined for external tags including fin clips? ☒ Yes ☐ No Scanned for PIT tags? ☒ Yes ☐ No

Tag #

Tag Type

Location of tag on carcass

CARCASS DISPOSITION: (check one or more)

- ☐ 1 = Left where found
☐ 2 = Buried
☐ 3 = Collected for necropsy/salvage
☒ 4 = Frozen for later examination
☐ 5 = Other (describe) _____

Carcass Necropsied?

☐ Yes ☒ No

Date Necropsied: _____

Necropsy Lead: _____

PHOTODOCUMENTATION:

Photos/video taken? ☒ Yes ☐ No

Disposition of Photos/Video Provided to PSEG Nuclear Environmental Affairs and Nuclear Regulatory Affairs personnel.

SAMPLES COLLECTED? ☐ Yes ☒ No

Sample

How preserved

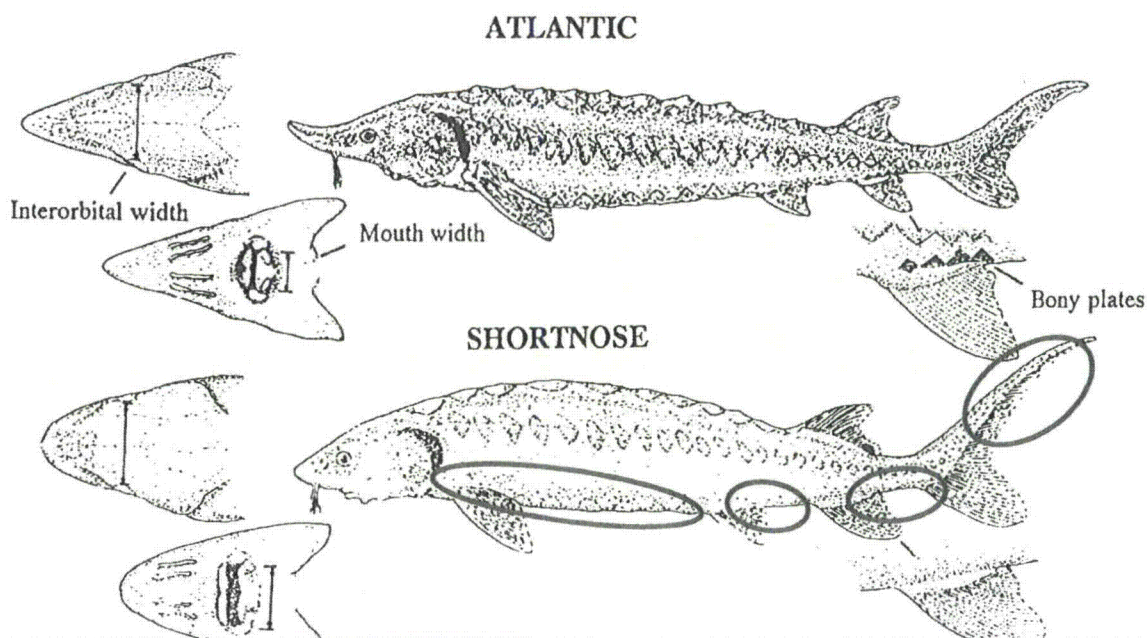
Disposition (person, affiliation, use)

Comments: The deceased Shortnose Sturgeon specimen was collected from the Salem Circulating Water Intake Structure, during routine trash rack cleaning, at 08:20am on July 28, 2013. Positive identification was made by Environmental Consulting Services personnel at 10:40am. Photos, length measurements, and an inspection for external/PIT tags was made, and none were found. The fish is currently preserved (frozen) at ECSI office waiting for instruction on further disposition. New Jersey DEP, Division of Fish and Wildlife was notified of the incidental take.

Distinguishing Characteristics of Atlantic and Shortnose Sturgeon (version 07-20-2009)

| Characteristic | Atlantic Sturgeon, <i>Acipenser oxyrinchus</i> | Shortnose Sturgeon, <i>Acipenser brevirostrum</i> |
|---------------------------|---|---|
| Maximum length | > 9 feet/ 274 cm | 4 feet/ 122 cm |
| Mouth | Football shaped and small. Width inside lips < 55% of bony interorbital width | Wide and oval in shape. Width inside lips > 62% of bony interorbital width |
| *Pre-anal plates | Paired plates posterior to the rectum & anterior to the anal fin. | 1-3 pre-anal plates almost always occurring as median structures (occurring singly) |
| Plates along the anal fin | Rhombic, bony plates found along the lateral base of the anal fin (see diagram below) | No plates along the base of anal fin |
| Habitat/Range | Anadromous; spawn in freshwater but primarily lead a marine existence | Freshwater amphidromous; found primarily in fresh water but does make some coastal migrations |

* From Vecsei and Peterson, 2004



Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). Please note if no wounds / abnormalities are found.

At the time of observation and data collection, the sturgeon was deceased. The specimen did not show any evidence of severe external damage (lacerations or missing fins), but did show minor bruising ventrally near the head, on the sides and stomach, between the pectoral and pelvic fins, around the vent, and the anal fins, and along the top of the caudal fin (locations identified in the illustration above.)

Data Access Policy: Upon written request, information submitted to National Marine Fisheries Service (NOAA Fisheries) on this form will be released to the requestor provided that the requestor credit the collector of the information and NOAA Fisheries. NOAA Fisheries will notify the collector that these data have been requested and the intent of their use.

Submit completed forms (within 30 days of date of investigation) to: Northeast Region Contacts – Shortnose Sturgeon Recovery Coordinator (Jessica Pruden, Jessica.Pruden@noaa.gov, 978-282-8482) or Atlantic Sturgeon Recovery Coordinator (Lynn Lankshear, Lynn.Lankshear@noaa.gov, 978-282-8473); Southeast Region Contacts- Shortnose Sturgeon Recovery Coordinator (Stephanie Bolden, Stephanie.Bolden@noaa.gov, 727-824-5312) or Atlantic Sturgeon Recovery Coordinator (Kelly Shotts, Kelly.Shotts@noaa.gov, 727-551-5603).

ATTACHMENT 1 (Sturgeon)

Observer's full name: Douglas E. Potts
Reporter's full name: Douglas E. Potts

Species Identification (Key attached): Shortnose Sturgeon (Acipenser brevirostrum)

Site of Impingement (Unit 1 or 2, CWS or DWS, Bay #, etc.): Unit 1, 12B intake bay

Date animal observed: 7/28/13 Time animal observed: 08:15
Date animal collected: 7/28/13 Time animal collected: 08:20
Date rehab facility contacted: _____ Time rehab facility contacted: _____
Date animal picked up: _____ Time animal picked up: _____

Environmental conditions at time of observation (i.e., tidal stage, weather):
Air Temp - 23.3°C; Sal. - 3.0ppt; Wind - South; Sky - Overcast; Wave - Slight; Tide - Ebb2 (89.1)

Date and time of last inspection of screen: 7/28/13 - 08:00
Water temperature (°C) at site and time of observation: 26.0°C

Number of pumps operating at time of observation: Unit 1 6 Unit 2 6
Average percent of power generating capacity achieved per unit at time of observation:

Unit 1 100 Unit 2 100

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation:

Unit 1 100 Unit 2 100

Sturgeon Information:

Species Shortnose Sturgeon (Acipenser brevirostrum)

Fork length (or total length) FL (758mm) / TL (835mm) Weight 2.2 kg

Condition of specimen/description of animal

Specimen was collected alive, and showed no severe external damage. Some evidence of minor bruising was observed along the sides and belly of the fish, between the pectoral and pelvic fins, anterior to the anal fin, and along the top of the caudal fin.

Fish Decomposed: NO SLIGHTLY MODERATELY SEVERELY

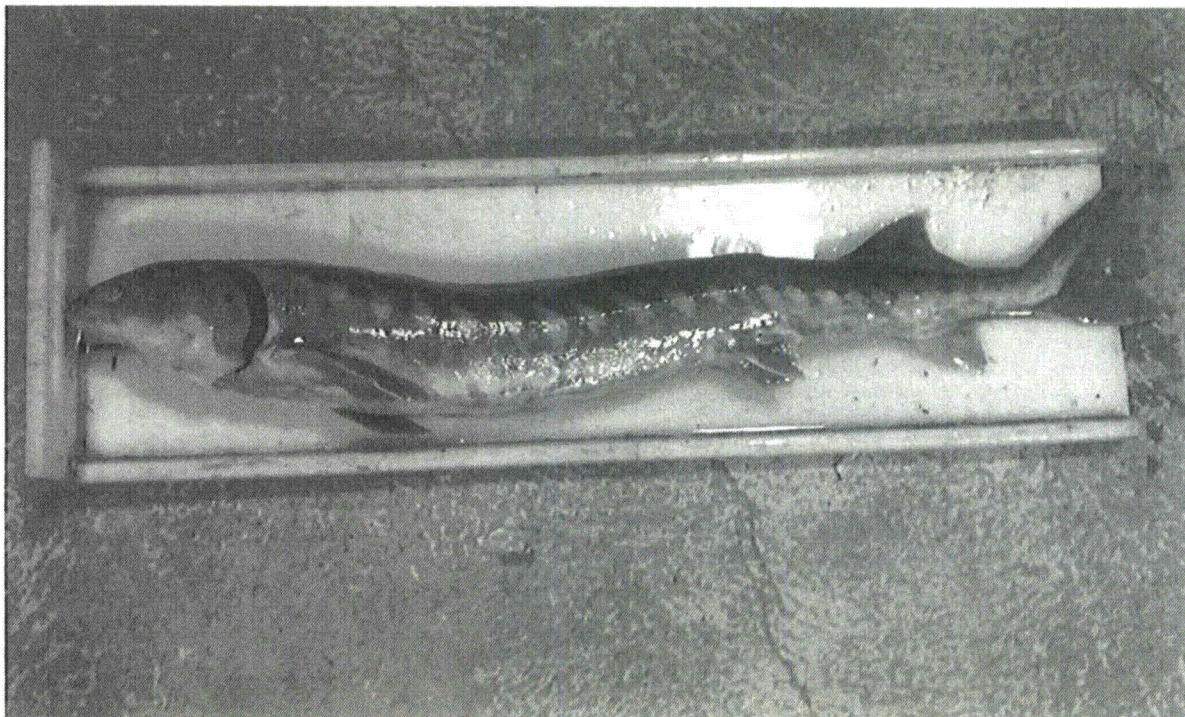
Fish tagged: YES / NO *Please record all tag numbers.* Tag # _____

Photograph attached: YES / NO

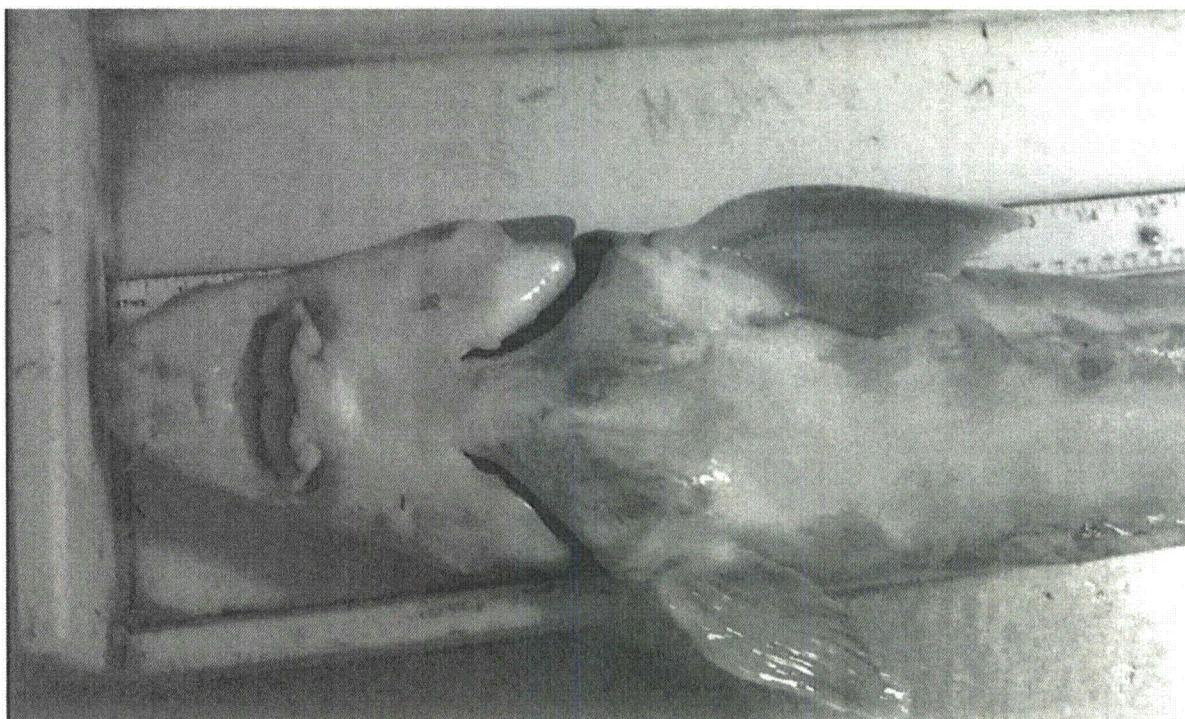
(please label *species*, *date*, *geographic site* and *vessel name* on back of photograph)

ATTACHMENT 1 (Sturgeon) continued

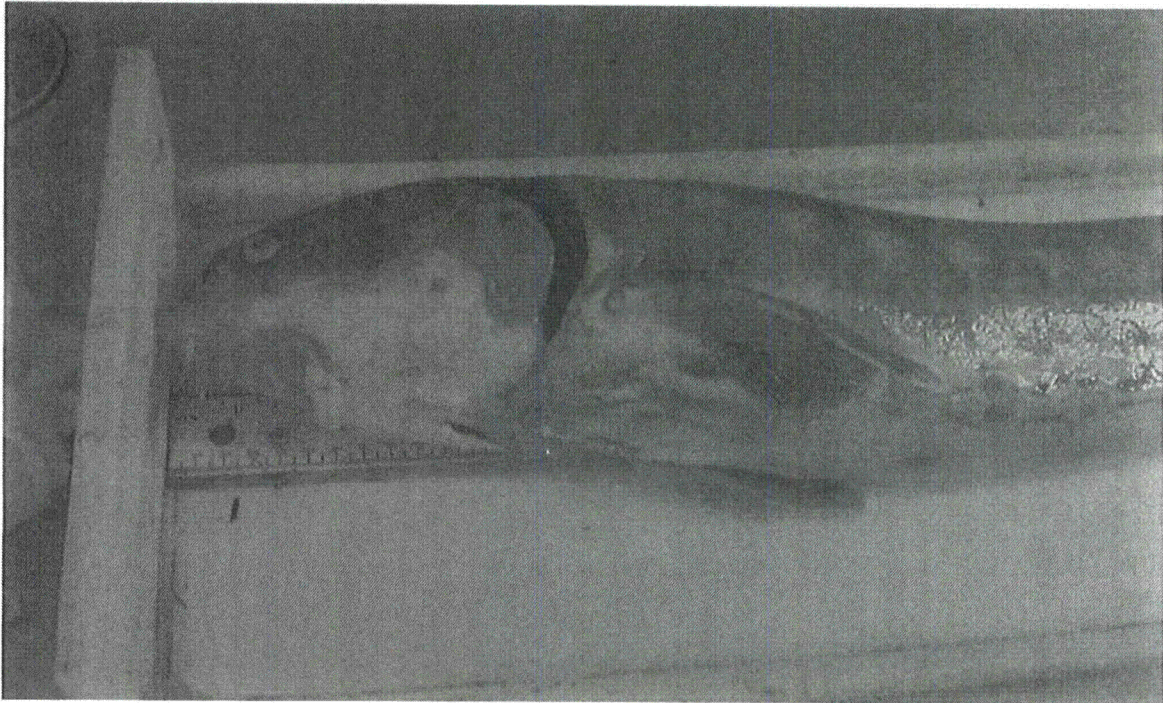
Photos



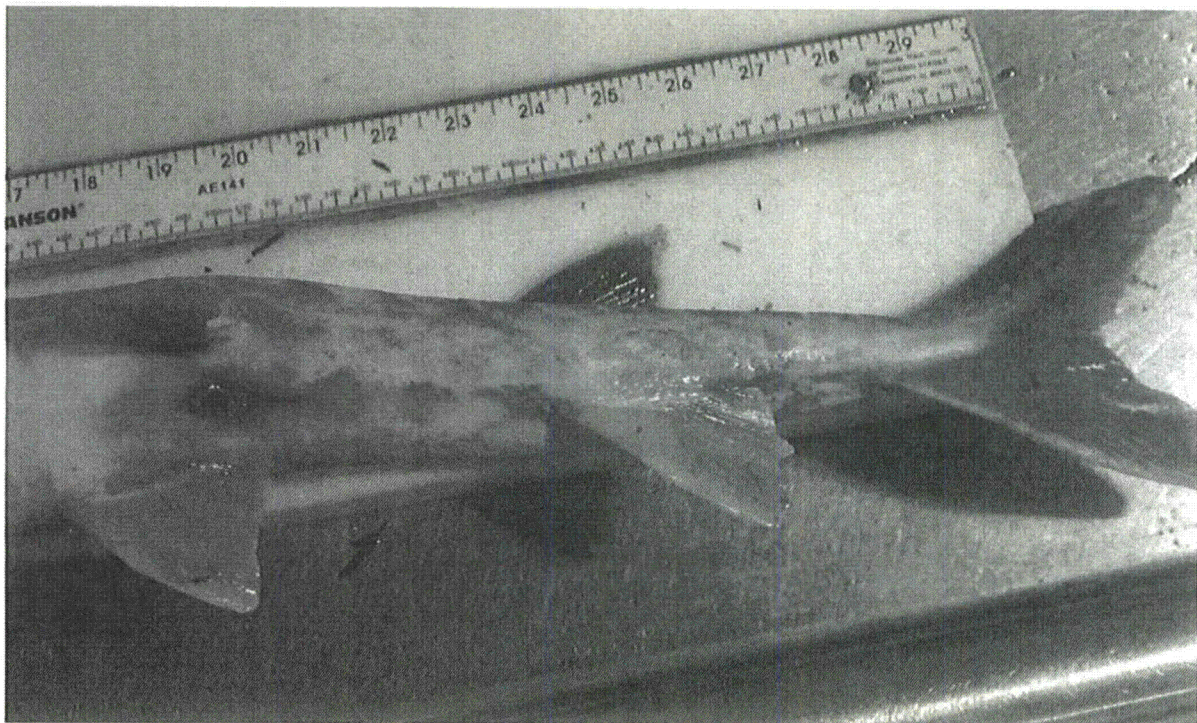
Shortnose sturgeon (*Acipenser brevirostrum*) collected on 7-28-13 at 08:20am by Salem yard crew during routine trash rack cleaning at PSEG Salem CWIS. Full view showing size and overall condition.



Ventral view of fish, showing wide mouth, as well as some of the external bruising observed.



Shortnose sturgeon; collected on 7-28-13. View of left side of head.



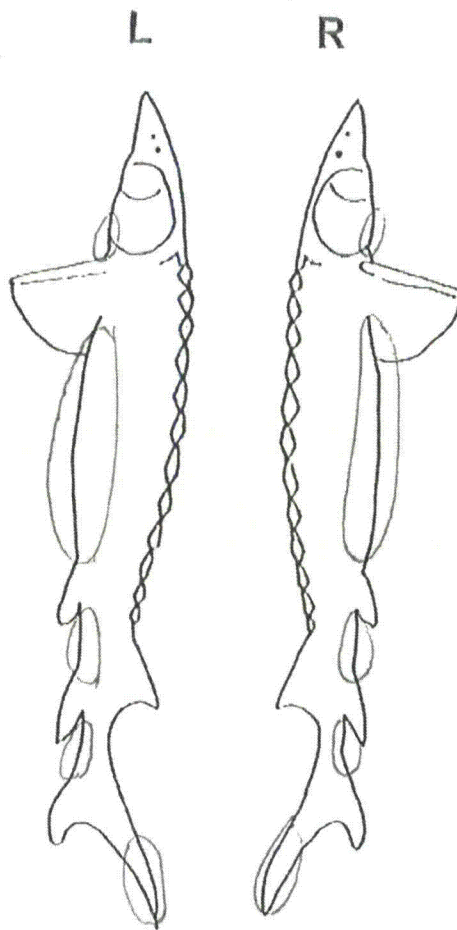
View of bruising around vent and between pelvic and anal fin. Also shows lack of bony plates along anal fin.



Shortnose sturgeon, collected on 7-28-13. Dorsal view of head.

ATTACHMENT 1 (Sturgeon) continued

Draw wounds, abnormalities, tag locations on diagram and briefly describe below



Description of fish condition:

At the time of observation and data collection, the sturgeon was deceased. The specimen did not show any evidence of severe external damage, such as lacerations, but did show minor bruising ventrally near the head, on the sides and stomach, between the pectoral and pelvic fins, around the vent, and the anal fins, and along the top of the caudal fin.

No fin tags were observed, and the presence of PIT tags were not indicated when scanned.

